



Department of Energy

Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3305

January 14, 2005

DOE/EA-1516

FINDING OF NO SIGNIFICANT IMPACT For the PROPOSED CLIPPER WINDPOWER, INC. LOW WIND SPEED TURBINE DEMONSTRATION PROJECT, CARBON COUNTY, WYOMING

AGENCY: U.S. Department of Energy, Golden Field Office

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: The U.S. Department of Energy (DOE) conducted an Environmental Assessment (EA) for the Proposed Clipper Windpower, Inc. Low Wind Speed Turbine Demonstration Project, Carbon County, Wyoming, to evaluate potential environmental impacts of project construction and operation.

DOE through its National Renewable Energy Laboratory (NREL), would provide partial funding through a cost-shared research and development subcontract with Clipper Windpower, Inc. (Clipper) for this project during the 3-year performance test period.

Clipper has developed a proprietary low wind speed turbine design that is capable of producing more electricity in low wind speed conditions than comparable wind turbines. The Clipper turbine would have a maximum output of 2.5 megawatts (MW) of electrical power. Clipper has designed and constructed a full-scale version of the low wind speed turbine and has begun the process of obtaining international certification for the low wind speed turbine model.

Although ultimate deployment of the demonstration turbine is anticipated to be at low wind speed sites (sites where high velocity winds are less frequent than at "high wind speed" sites), the Carbon County, Wyoming site, where this turbine will be tested, is a high wind speed site. This will allow testing of the turbine's operational characteristics and efficiency to be completed in a shorter time frame than if testing were done at a low wind speed site, because the wind will blow at high speeds more often.

Wind turbine model certification is a major step in providing electric service organizations, government agencies, businesses, and private individuals that plan to purchase a wind installation with assurances that wind turbine models have been tested and meet certain design, manufacturing, performance, and safety standards. The Clipper low wind speed turbine design has undergone numerous tests, including drive train testing in the National Wind Test Center dynamometer. At this point, Clipper needs to test the demonstration wind turbine under natural wind conditions before the design can obtain international certification and can be put into full commercial production.



This EA analyzes the potential environmental impacts of the DOE decision to partially fund the Proposed Action. In accordance with applicable regulations and policies, the DOE conducted internal and external (public) scoping of the Proposed Action. This process determined the scope and the specific critical elements of the human environment to be addressed in this EA. Federal, state, and local government agencies as well as Native American tribes were also contacted to identify potential issues and concerns. In addition to the Proposed Action, the EA also analyzes the No Action Alternative in detail. Other siting options were evaluated prior to scoping by Clipper. These options either would not meet the needs of Clipper or would obviously result in more disturbance and environmental impacts than the Proposed Action. However, these options are included and discussed in the EA but were not analyzed in detail.

DOE's Proposed Action is to partially fund the construction and three years of operation of the Clipper Windpower, Inc. Low Wind Speed Turbine Demonstration Project. This funding would be provided through an NREL subcontract with Clipper and would be administrated by NREL. The turbine installation and testing would be managed by Clipper.

All discussions and findings related to the project site and the Proposed Action are contained in the attached Final EA, including the applicant-committed practices presented in the Proposed Action. The Final EA is hereby incorporated by reference.

Comments on the draft EA were received from U.S. Fish and Wildlife Service and Wyoming Game and Fish Department; the comment letters are attached. As a result, consultation was undertaken between DOE and those wildlife agencies. The attached Errata documents changes to the EA that were made as a result of the consultation. The Errata is hereby incorporated by reference. The agency comment letters and DOE's responses to the comments are also attached and are hereby incorporated by reference.

COPIES OF THE ENVIRONMENTAL ASSESSMENT ARE AVAILABLE AT THE DOE GOLDEN FIELD OFFICE WEBSITE AT <http://www.eere.energy.gov/golden/> OR FROM:

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FOR FURTHER INFORMATION ON THE DOE NEPA PROCESS CONTACT:

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DETERMINATION:

DOE determines that providing partial funding for the construction and three years of operations of the Proposed Clipper Windpower, Inc. Low Wind Speed Turbine Demonstration Project located near Medicine Bow, Carbon County, Wyoming does not constitute a major Federal Action significantly affecting the quality of the human environment, as defined by the National Environmental Policy Act. All applicant-committed measures identified and included in the Proposed Action of the EA as conditions for Federal funding shall be incorporated in the NREL subcontract to Clipper. The preparation of an Environmental Impact Statement is not required, and DOE is issuing this Finding of No Significant Impact.

Issued in Golden, Colorado, 14th day of January 2005.


John H. Kersten
Manager

Enclosure